Phytoremediation: A green solution

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Tailored Improvement of Brownfield Regeneration in Europe

Phytoremediation: A green solution

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Content

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2. The processes
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1. Introduction

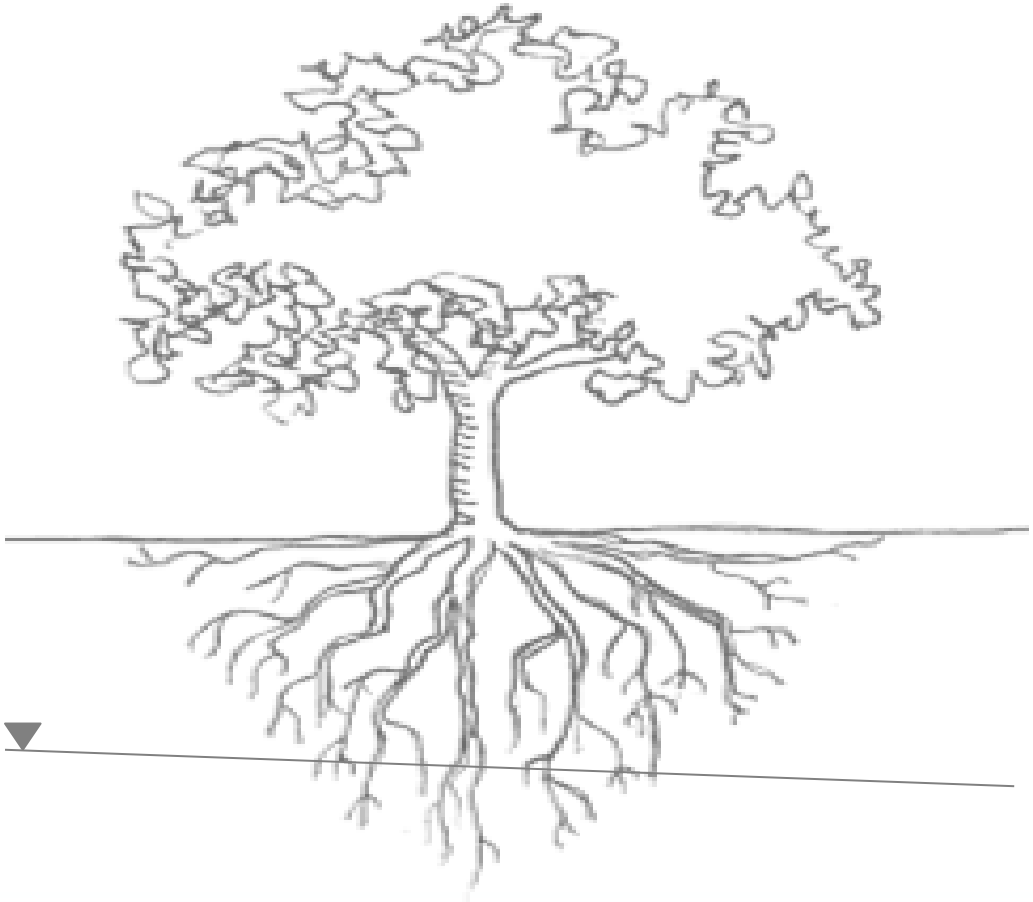
Phyto = plant (old greek)

Remedium or remediation = restoring of balance

→ Treatment of contaminated soil by use of plants

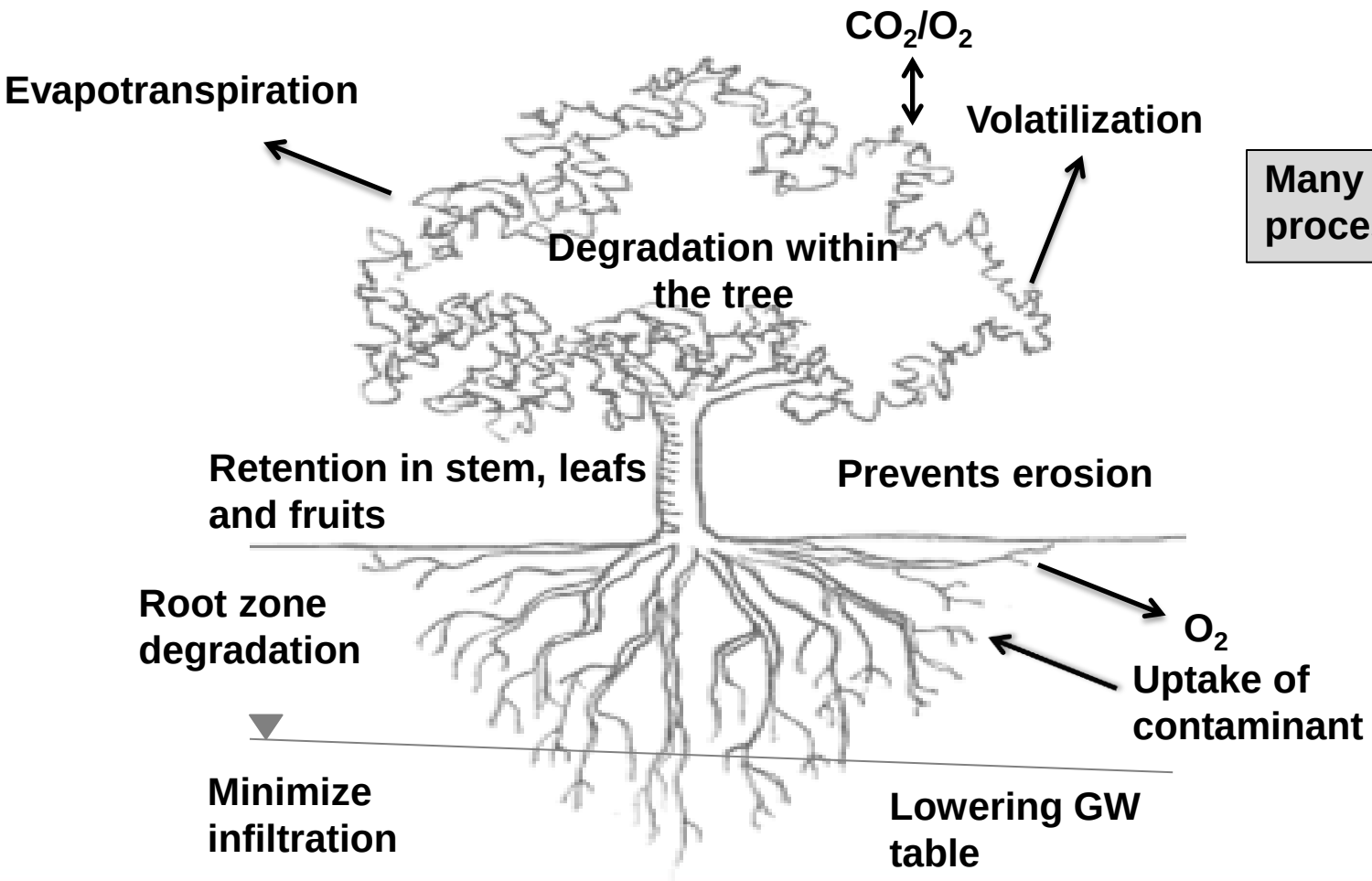
2. The processes

What happens within and around a tree?



2. The processes

What happens within and around a tree?



Many other processes ?

2. The processes

- **Phytoextraction**:
  Transfer of pollutants to the vegetation.
- **Phytovolatilization**:
  Volatilization of components through trunk or leafs.
- **Rhizo- and phytodegradationion**:
  Degradation of contamination in the root zone or inside the plants.
- **Hydraulic control and soil fixation**:
  Plants bind the soil and minimize infiltration.

3. Important to consider

- Phytoremediation takes time – years or even decades.
- Limited by soil toxicity and climate.
- Only useful for shallow contamination.
- The costs equals natural attenuation.
- Decrease downwards migration of contaminants.
- Plants enhance degradation by natural degraders.
- Fixates the soil.
- Looks nice during treatment.

4. Conclusion

- Often not an option at urban sites - unless a park is desired.
- Very useful for large size areas with shallow contamination.
- Very useful for low-priority sites which needs to be handled.

Thank you for your attention!

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